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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,603	10/17/2003	Don Zoran	K8000275US	9119
34236	7590	09/29/2005	EXAMINER	
VALENTINE A. COTTRILL SUITE 1020 50 QUEEN STREET NORTH KITCHENER, ON N2H6M2 CANADA			CADUGAN, ERICA E	
			ART UNIT	PAPER NUMBER
			3722	

DATE MAILED: 09/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/686,603

Applicant(s)

ZORAN, DON

Examiner

Erica E. Cadugan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4-6,9,13-15 and 17-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4-6,9,13-15 and 17-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

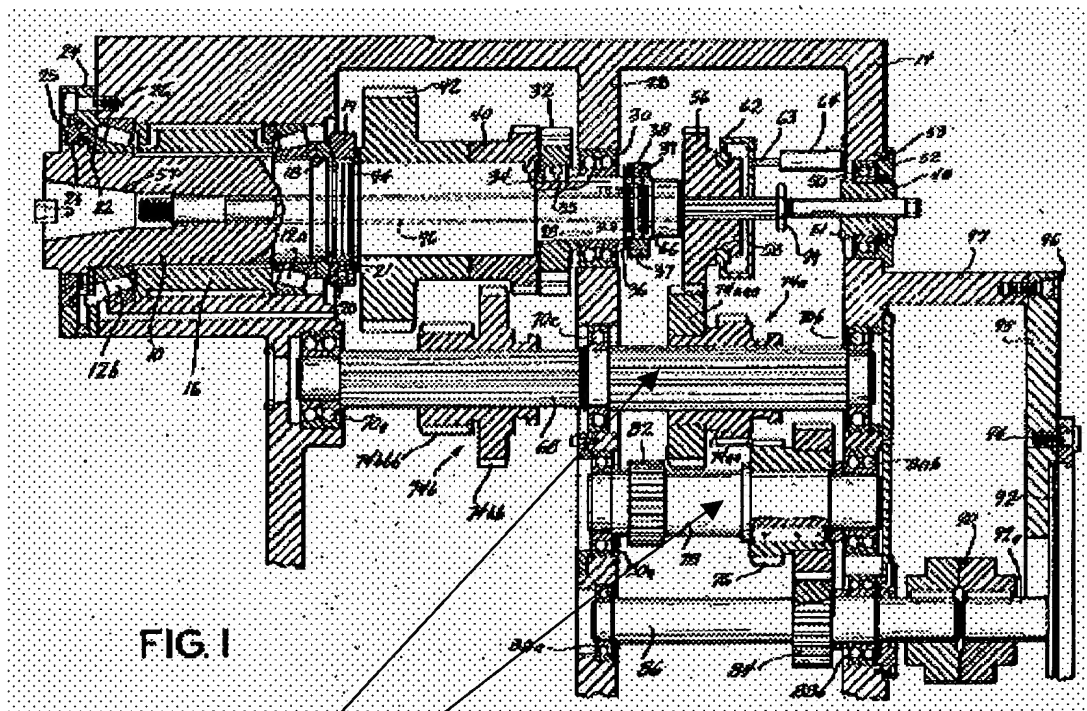
Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION***Claim Rejections - 35 USC § 103***

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 4, 9, 13, 17-18, 20, and 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 4,413,938 to Kuczenski in view of U.S. Pat. No. 3,169,412 to Weeks.

Kuczenski teaches a machine tool including a spindle (see the first paragraph in column 1, for example) including a plurality of shafts having gear pinions thereon (see the reproduction of Figure 1 below).



Shafts including
gearing pinions

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Kuczenski doesn't teach any sort of vibration dampening arrangement.

Weeks teaches a "component" in the form of a reduction gear pinion/shaft, which "component" includes "constituent parts" 3 and 6 (Figure 1, see also col. 4, lines 36-48, for example). Note that a "sheet" of "non-resilient" vibration damping material 8 (Figure 1, col. 2, lines 18-30) is sandwiched between the aforescribed "constituent parts" (Figure 1) such that the damping material is considered to be located in a "slot" between the "constituent parts". Note also that bolts 7 extend through holes in the "constituent parts" and the damping material in order to fasten the "constituent parts" and the damping material together (see Figure 1 and col. 2, lines 3-17, for example). Note that the "component" is made of "metal" (col. 1, line 24) (such as a dense steel alloy per col. 4, lines 23-25, for example), and thus, by the nature of "metal" that would be able to survive the high forces associated with mating gears, the "constituent parts" are considered to be made of "substantially rigid material".

Re claim 9, see col. 1, line 24 and col. 4, lines 23-24.

It is noted that Weeks teaches that the gearing including the vibration dampening arrangement can be used in "many applications" (col. 1, line 13, see also col. 4, lines 23-48), and thus is not limited to just the explicitly-described example of marine propulsion gearing.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided the vibration dampening arrangement taught by Weeks to the gearing/shaft combos taught by Kuczenski for the purpose of dampening vibrations in Kuczenski's device, the benefits of which include the reduction of noise as explicitly taught by Weeks (col. 1, lines 27-40, for example).

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Additionally, re claims 13 and 18, while Weeks is silent as to the specific value of the thickness of the damping material layer and thus does not explicitly teach that the damping material “has a thickness between approximately 0.01 inch and approximately 0.02 inch”, it would, however, have been obvious to one having ordinary skill in the art at the time the invention was made to have utilized whatever thickness or range of thicknesses as was desired or expedient, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

3. Claims 5-6, 14-15, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuczenski in view of Weeks as applied above.

Kuczenski in view of Weeks above teaches all aspects of the claimed invention as described above.

Weeks does not explicitly teach that the damping material is polyvinylchloride, and Weeks is silent as to the property of the permeability or lack thereof of the damping material.

It is noted that Weeks does explicitly teach that the damping material may be of “any suitable form” (col. 2, lines 18-19).

Examiner takes official notice that the use of polyvinylchloride in vibration dampening applications is notoriously well-known in the art. Examiner also notes that “substantial impermeability” is a property of such polyvinylchloride.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used whatever known damping material, such as polyvinylchloride, as was desired or expedient to an end user, based on any number of factors, such as cost and

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availability, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416. See also Ballas Liquidating Co. v. Allied industries of Kansas, Inc. (DC Kans) 205 USPQ 331.

4. Claim 22 is alternatively rejected under 35 USC 103 as being obvious over U.S. Pat. No. 3,169,412 to Weeks.

Weeks teaches a “component” in the form of a reduction gear pinion, which “component” includes “constituent parts” 3 and 6 (Figure 1, see also col. 4, lines 36-48, for example). Note that a “sheet” of “non-resilient” vibration damping material 8 (Figure 1, col. 2, lines 18-30) is sandwiched between the aforescribed “constituent parts” (Figure 1) such that the damping material is considered to be located in a “slot” between the “constituent parts”. Note also that bolts 7 extend through holes in the “constituent parts” and the damping material in order to fasten the “constituent parts” and the damping material together (see Figure 1 and col. 2, lines 3-17, for example). Note that the “component” is made of “metal” (col. 1, line 24) (such as a dense steel alloy per col. 4, lines 23-25, for example), and thus, by the nature of “metal” that would be able to survive the high forces associated with mating gears, the “constituent parts” are considered to be made of “substantially rigid material”

Additionally, it is noted that claim 22 sets forth that the “component” is “to be included in a machine tool”, but does not appear to actually recite the machine tool. Note that a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the

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claim. In the instant case, it is noted that Weeks teaches that the gearing including the vibration dampening arrangement can be used in “many applications” (col. 1, line 13, see also col. 4, lines 23-48), and thus is not limited to just the explicitly-described example of marine propulsion gearing. Thus, there appears to be no reason why the “component” taught by Weeks couldn’t “included in a machine tool” utilizing gearing (noting that machine tools utilizing gearing are notoriously well-known in the art).

Weeks is silent as to the specific thickness of the damping material, and thus does not explicitly teach that the damping material “has a thickness between approximately 0.01 inch and approximately 0.02 inch”.

However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have utilized whatever thickness or range of thicknesses as was desired or expedient, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

Response to Arguments

5. Applicant's arguments (as well as the affidavit by Mr. Zoran) with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. Any prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

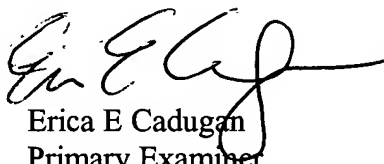
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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erica E. Cadugan whose telephone number is (571) 272-4474.

The examiner can normally be reached on M-F, 7:30 a.m. to 5:00 p.m., alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer D. Ashley can be reached on (571) 272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Erica E Cadugan
Primary Examiner
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